FILE 'HCAPLUS' ENTERED AT 15:02:18 ON 24 OCT 2002
E FILTRATION/CT
E E3+ALL/CT
L1 15339 S FILTRATION/CT
L2 140698 S CENTRIFUG######
L3 922 S L1 AND L2
L4 54161 S CONTINUOUS##(3A)(PROCESS#### OR FLOW### OR FLUID##)
L5 15 S L3 AND L4
L6 6840 S (SAND OR BEAD OR MICROBEAD OR MICROPARTICULATE)(3A)(FILTER##### OR FILTRATION)
L7 2339 S (SAND OR BEAD OR MICROBEAD OR MICROPARTICULATE)(3A)COLUMN
L8 119 S L6 AND L7
L9 4 S L8 AND L2
L10 0 S L4 AND L8
L11 29147 S WATER(2A)(FILTER##### OR FILTRATION)
L12 129 S GIARDIA(6A)(FILTER##### OR FILTRATION)
L13 150 S GIARDIA(8A)(FILTER##### OR FILTRATION)
L14 102 S L11 AND L12
L15 29180 S L11 OR L13
L16 145 S L15 AND L4
L17 576 S L15 AND L2
L18 2226 S L15 AND L6
L19 48 S L15 AND L7
L20 983 S L2 AND L4
L21 3 S (L16 OR L17 OR L18 OR L19) AND L20
L22 0 S L2 AND L4 AND L7

FILE 'ANABSTR, NTIS, BIOSIS, COMPENDEX, PASCAL, JICST-EPLUS, POLLUAB, PAPERCHEM2, OCEAN, AQUASCI, CEABA-VTB' ENTERED AT 15:17:43 ON 24 OCT 2002
L23 136842 S CENTRIFUG######
L24 67095 S CONTINUOUS##(3A)(ANALYT###### OR ANALYSIS OR CHROMATOG##### OR PROCESS#### OR FLOW### OR FLUID##)
L25 26133 S (PORE OR MICROPOR#### OR POROUS OR GEL OR GELFILTR#### OR PERMEATION OR SEPHADEX OR PARTICULATE OR DEXTRAN OR SAND OR BEAD OR MICROBEAD OR MICROPARTICULATE)(3A)COLUMN
L26 643 S FLOW CENTRIFUG#####
L27 5 S L23 AND L24 AND L25
L28 5 S L26 AND L25
L29 6 S L27 OR L28
L30 6 DUP REM L29 (0 DUPLICATES REMOVED)

FILE 'EUROPATFULL, PCTFULL' ENTERED AT 15:30:40 ON 24 OCT 2002
L32 248 S CONTINUOUS##(3A)(ANALYT###### OR ANALYSIS OR CHROMATOG##### OR PROCESS#### OR FLOW### OR FLUID##)/TI,AB,CLM AND CENTRIFUG#####/TI,AB,CLM
L33 26 S FLOW CENTRIFUG#####/TI,CLM,AB
L34 581 S (PORE OR MICROPOR#### OR POROUS OR GEL OR GELFILTR#### OR PERMEATION OR SEPHADEX OR PARTICULATE OR DEXTRAN OR SAND OR BEAD OR MICROBEAD OR MICROPARTICULATE)(3A)COLUMN/TI,AB,CLM
L35 262 S (L32 OR L33)
L36 5 S L34 AND L35

FILE 'WPIX, JAPIO' ENTERED AT 15:37:34 ON 24 OCT 2002
L37 899 S CONTINUOUS##(3A)(ANALYT###### OR ANALYSIS OR CHROMATOG##### OR PROCESS#### OR FLOW### OR FLUID##) AND CENTRIFUG#####
L38 202 S FLOW CENTRIFUG#####
L39 5856 S (PORE OR MICROPOR#### OR POROUS OR GEL OR GELFILTR#### OR PERMEATION OR SEPHADEX OR PARTICULATE OR DEXTRAN OR SAND OR BEAD OR MICROBEAD OR MICROPARTICULATE)(3A)COLUMN

L40 1 S L37 AND L38 AND L39
L41 39 S L37 AND L38
L42 1 S L37 AND L39
L43 1 S L38 AND L39

FILE 'DPCI' ENTERED AT 15:41:26 ON 24 OCT 2002
L44 1 S WO 9830307/PN
SEL PN.D
L45 19 S (CA871263/PN.D OR RU2011367/PN.D OR
US4081356/PN.D OR US4675110/PN.D OR US5288415/PN.D OR US5556544/PN.D)
SEL L45 PRN

FILE 'WPIX, JAPIO, HCAPLUS' ENTERED AT 15:42:59 ON 24 OCT 2002
L46 33 S (US1991-791837/PRN OR US1992-930017/PRN OR
AU1999-57077/PRN OR AU2001-57857/PRN OR DE1984-3427114/PRN OR
DE1984-3427214/PRN OR DE1985-3588026/PRN OR DE1987-3722563/PRN
OR EP1985-115102/PRN OR EP1989-106812/PRN OR FR1995-6140/PRN
OR GB1994-22504/PRN OR JP1985-290921/PRN OR US1979-37361/PRN
OR US1985-798952/PRN OR US1985-804348/PRN OR US1987-68305/PRN
OR US1990-580828/PRN OR US1993-136711/PRN OR US1993-6783/PRN
OR US1993-94659/PRN OR US1994-225162/PRN OR US1994-282097/PRN
OR US1995-2879P/PRN OR US1995-525182/PRN OR US1995-534051/PRN
OR US1996-26582P/PRN OR US1996-623688/PRN OR US1996-690672/PRN
OR US1997-1038/PRN OR US1997-35099P/PRN OR US1997-877523/PRN
OR US1997-921106/PRN OR US1999-262903/PRN OR US2001-878257/PRN)

L47 2277 S (L37 OR L38)
L48 38945 S L39
L49 1 S L46 AND L47
L50 1 S L46 AND L48
D ALL

FILE 'PROMT' ENTERED AT 15:44:20 ON 24 OCT 2002
L51 305 S (PORE OR MICROPOR#### OR POROUS OR GEL OR
GELFILTR#### OR PERMEATION OR SEPHADEX OR PARTICULATE OR
DEXTRAN OR SAND OR BEAD OR MICROBEAD OR MICROPARTICULATE)(3A)COLUMN
L52 45 S FLOW CENTRIFUG#####
L53 219 S CONTINUOUS##(3A)(ANALYT###### OR ANALYSIS
OR CHROMATOG##### OR PROCESS#### OR FLOW### OR FLUID##) AND
CENTRIFUG#####
L54 242 S (L52 OR L53)
L55 2 S L51 AND L54
D BIB KWIC 1-2

FILE 'NTIS' ENTERED AT 15:47:08 ON 24 OCT 2002
L56 74 S CONTINUOUS##(3A)(ANALYT###### OR ANALYSIS
OR CHROMATOG##### OR PROCESS#### OR FLOW### OR FLUID##) AND
CENTRIFUG#####
L57 32 S FLOW CENTRIFUG#####
L58 409 S (PORE OR MICROPOR#### OR POROUS OR GEL OR
GELFILTR#### OR PERMEATION OR SEPHADEX OR PARTICULATE OR
DEXTRAN OR SAND OR BEAD OR MICROBEAD OR MICROPARTICULATE)(3A)CO
LUMN
L59 0 S (L56 OR L57) AND L58
L60 572 S (PORE OR MICROPOR#### OR POROUS OR GEL OR
GELFILTR#### OR PERMEATION OR SEPHADEX OR PARTICULATE OR
DEXTRAN OR SAND OR BEAD OR MICROBEAD OR MICROPARTICULATE)(6A)CO
LUMN
L61 0 S (L56 OR L57) AND L60
L62 53 S CENTRIFUG#####(2A)(TUBE OR TUBING)
L63 0 S L60 AND L62

Cygan, Michael

From: Harrison, Jeff
Sent: Thursday, October 24, 2002 3:55 PM
To: Cygan, Michael
Cc: Harrison, Jeff
Subject: 09/009,666

History of search is at bottom.

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AN 1998:10629 AQUASCI
DN ASFA2 1998
TI Biogeochemistry and cycling of water column particulates in southern Lake Michigan
AU Shafer, M.M.
CS The University of Wisconsin - Madison
SO (19890600) 447 pp. Diss. Ph.D.: DA8824112.
DT Book
TC Dissertation
FS ASFA2
LA English
SL English
AB The biogeochemistry of suspended (standing crop) and settling (sediment trap collections) particles was studied at a 160 m station in central southern Lake Michigan. The spatial and temporal distributions of major particle components were documented, and major particle production and removal processes were quantified. A sampling system consisting of a pumping unit and sieving column coupled to continuous-flow centrifuges was developed to collect gram quantities of standing crop particles. Particle collections were fractionated into eight size classes by sieving. The spring diatom bloom was the largest autochthonous particle event, contributing 72 g m super(-2) of mass. A sub-thermocline peak at the deep chlorophyll maximum, a hypolimnetic particle minima, and a developing nepheloid layer characterized mid-summer particle profiles. Calcium carbonate precipitation dominated the late-summer to fall period, contributing 35 g m super(-2) of mass. The average mass flux was 0.44 g m super(-2) d super(-1) over the 180 day stratified period and 5.22 g m super(-2) d super(-1) over the unstratified period. Sediment traps were nearly 100% efficient for particulate aluminum and 85-90% efficient for diatoms and calcium carbonate. High fluxes measured during the unstratified period were not strictly a function of particle concentrations and intrinsic settling velocity. Seasonal variation in size structure of the particulate matter was explained by inputs of diatoms and calcite onto a background of small allochthonous particles. A size-specific component model was developed from elemental analyses and phase separations. The model phases (biogenic silica, organic matter, illite, chlorite, calcite, dolomite, quartz, anorthite, microcline, albite, and iron oxide) accounted for 95.4% of the standing crop and 100.1% of the sediment trap particle mass. The component model was used to estimate particle phase and trace element delivery to the sediment surface. Diatoms accounted for 60.7% of the mass flux, followed by calcite (19.5%), and clay (6.5%). Diatoms were the major vector of trace element transport to the sediment surface, delivering over 80% of the lead and zinc, and at least 50% of the cadmium, chromium, and copper. Water column residence times ranged from 1.1 years for lead to over 15 years for copper (DBO).

FILE 'ANABSTR, NTIS, BIOSIS, COMPENDEX, PASCAL, JICST-EPLUS, POLLUAB, PAPERCHEM2, OCEAN, AQUASCI, CEABA-VTB, WPIX, JAPIO, HCAPLUS' ENTERED AT 15:50:58 ON 24 OCT 2002

L64 6475 S CENTRIFUG#####(2A)(TUBE OR TUBING)
L65 80138 S (PORE OR MICROPOR#### OR POROUS OR GEL OR GELFILTR#### OR PER
L66 35 S L64 AND L65
L67 2 S L66 AND FLOW
L68 1 S L66 AND CONTINUOUS##
L69 3 S L67-68
L70 9715 S CONTINUOUS##(2A)(FILTER#### OR FILTRATION)
L71 21474 S CENTRIFUG######(6A)(FILTER#### OR FILTRATION)
L72 18371 S COLUMN(6A)(FILTER#### OR FILTRATION)
L73 10537 S COLUMN(6A)CONTINUOUS##
L74 2963 S COLUMN(6A)CENTRIFUG######
L75 261 S L70 AND L71
L76 2 S L70 AND L74
L77 414 S L71 AND L72
L78 14 S L71 AND L73
L79 264 S L71 AND L74
L80 300 S L72 AND L74
L81 43 S L73 AND L74
L82 520 S (L77 OR L79-80)
L83 335 S L79-80
L84 2 S L75 AND L82
L85 229 S L77 AND L83
L86 4 S L81 AND L85
L87 16 S L76 OR L78 OR L84 OR L86
L88 13 DUP REM L87 (3 DUPLICATES REMOVED)
L89 810 S L66 OR L75 OR L77 OR L79 OR L80 OR L82 OR L83 OR L85
L90 421 S L89 AND (FILTER##### OR FILTRA#######)(5A)COLUMN
L91 9 S L90 AND CONTINUOUS##
L92 19 S L87 OR L69
L93 5 S L91 NOT L92
L94 5 DUP REM L93 (0 DUPLICATES REMOVED)

FILE 'ANABSTR, NTIS, BIOSIS, COMPENDEX, PASCAL, JICST-EPLUS, POLLUAB, PAPERCHEM2, OCEAN, AQUASCI, CEABA-VTB, WPIX, JAPIO, HCAPLUS' ENTERED AT 16:17:41 ON 24 OCT 2002

L95 549 S CONTINUOUS FLOW CENTRIFUG#####
L96 4 S L72 AND L95
L97 177 S CONTINUOUS FLOW CENTRIFUG#####/TI
L98 2 S L97 AND COLUMN/TI
L99 1 S RESIN COLUMN PERFUSION/TI AND 187/SO

FILE 'MEDLINE' ENTERED AT 16:23:45 ON 24 OCT 2002

L100 1 S RESIN COLUMN PERFUSION/TI AND 187/SO
L101 0 S L95 AND COLUMN/TI

FILE 'ANABSTR, NTIS, BIOSIS, COMPENDEX, PASCAL, JICST-EPLUS, POLLUAB, PAPERCHEM2, OCEAN, AQUASCI, CEABA-VTB, WPIX, JAPIO, HCAPLUS' ENTERED AT 16:27:28 ON 24 OCT 2002

L102 4 S L95 AND COLUMN/TI

FILE 'SCISEARCH' ENTERED AT 16:32:56 ON 24 OCT 2002
E WESTON M J/RE

FILE 'SCISEARCH' ENTERED AT 16:33:11 ON 24 OCT 2002
E WESTON M J, 1975/RE
L103 10 S E13-15

FILE 'HCAPLUS, MEDLINE, EMBASE' ENTERED AT 16:34:38 ON 24 OCT 2002

L104 2 S PLASMA PERFUSION THROUGH CHARCOAL/TI AND METHYLPARATHION POISONIN/TI
L105 3 S HEMOPERFUSION THROUGH UNCOATED/TI AND CHARCOAL/TI

L106 3 S ARTIFICIAL SUPPORT SYSTEMS/TI AND LIVER-FAILURE/TI
L107 3 S AFFINITY CHROMATOGRAPHY SYSTEMS/TI AND ARTIFICIAL LIVER SUPPORT/TI
L108 2 S ITO FLOW-THROUGH CENTRIFUGE/TI
L109 2 S LIVER SUPPORT SYSTEMS/TI AND 1978 PERSPECTIVE/TI
L110 34 S PROSTACYCLIN/TI AND EXTRACORPOREAL CIRCULATION/TI
L111 4 S WESTON M?/AU AND L110

FILE 'JICST-EPLUS' ENTERED AT 16:39:11 ON 24 OCT 2002
L112 0 S CURRENT METHODS/TI AND DETOXICATION SORPTION/TI
L113 0 S SORPTION DETOXICATION/TI AND SURGERY/TI

FILE 'HCAPLUS, MEDLINE, EMBASE' ENTERED AT 16:39:53 ON 24 OCT 2002
L114 1 S PLASMA PERFUSION THROUGH CHARCOAL/TI AND METHYLPARATHION POIS
L115 0 S SORPTION DETOXICATION/TI AND SURGERY/TI
L116 2 S CLINICAL-EXPERIENCE/TI AND CHARCOAL/TI AND RESIN HEMOPERFUSION/TI
L117 17 S L104 OR L105 OR L106 OR L107 OR L108 OR L109 OR L113 OR L114
L118 9 DUP REM L117 (8 DUPLICATES REMOVED)

Jeff Harrison
Team Leader, STIC-EIC2800
CP4-9C18, 703-306-5429